

AMENDMENTS TO THE CLAIMS:

Claims 48-66 are canceled without prejudice or disclaimer. Claim 77 is amended. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-76 (Canceled).

Claim 77, (Currently amended). A method for producing a DNA molecule encoding a variant of a reference protein having a known amino acid sequence, comprising

- (a) production of one or more variants of the reference protein;
- (b) raising antibodies against the reference protein and the one or more variants thereof;
- (c) mapping one or more epitopes of the reference protein with immunological and proteochemical techniques by testing-incubating the antibodies raised in step (b) with towards the reference protein or and at least one of the one or more variants thereof; and
- (d) forming a DNA molecule encoding the amino acid sequence of a selected variant, which has an altered amino acid sequence of one or more epitopes of the reference protein, wherein the selected variant evokes a lower immunogenic response in an animal than the reference protein.

Claim 78 (Previously added). The method of claim 77, wherein the DNA molecule is formed by mutating a DNA molecule encoding the amino acid sequence of the reference protein to alter the amino acid sequence of one or more epitopes.

Claim 79 (Previously added). The method of claim 77, wherein the DNA molecule is formed by synthesizing a DNA molecule encoding the amino acid sequence of the selected variant, which has an altered amino acid sequence of one or more epitopes of the reference protein.

Claim 80 (Previously added). The method of claim 77, wherein the reference protein is an industrial enzyme.

Claim 81 (Previously added). The method of claim 80, wherein the enzyme is a detergent enzyme.

Claim 82 (Previously added). The method of claim 81, wherein the detergent enzyme is an amylase, cellulase, lipase, oxidase, or protease.

Claim 83 (Previously added). The method of claim 77, wherein the reference protein is a process enzyme.

Claim 84 (Previously added). The method of claim 83, wherein the process enzyme is an amylase, cellulase, lipase, or lyase.

Claim 85 (Previously added). The method of claim 77, wherein the reference protein is a medicinal protein.

Claim 86 (Previously added). The method of claim 85, wherein the medicinal protein is a hormone or medicinal enzyme.

Claim 87 (Previously added). A method for producing a DNA molecule encoding a variant of a reference protein having a known amino acid sequence, comprising

- (a) raising polyclonal antibodies against the reference protein;
- (b) mapping one or more epitopes of the reference protein with immunological and proteochemical techniques by:
 - (i) incubating the polyclonal antibodies with the reference protein or with a variant thereof; and
 - (ii) incubating the mixture from step (i) with another protein selected from the group consisting of the reference protein and variants thereof;
- (c) forming a DNA molecule encoding the amino acid sequence of a selected variant, which has an altered amino acid sequence of one or more epitopes of the reference protein, wherein the selected variant evokes a lower immunogenic response in an animal than the reference protein.

Claim 88 (Previously added). The method of claim 87, wherein the DNA molecule is formed by mutating a DNA molecule encoding the amino acid sequence of the reference protein to alter the amino acid sequence of one or more epitopes.

Claim 89 (Previously added). The method of claim 87, wherein the DNA molecule is formed by synthesizing a DNA molecule encoding the amino acid sequence of the selected variant, which has an altered amino acid sequence of one or more epitopes of the reference protein.

Claim 90 (Previously added). The method of claim 87, wherein the reference protein is an industrial enzyme.

Claim 91 (Previously added). The method of claim 90, wherein the enzyme is a detergent enzyme.

Claim 92 (Previously added). The method of claim 91, wherein the detergent enzyme is an amylase, cellulase, lipase, oxidase, or protease.

Claim 93 (Previously added). The method of claim 87, wherein the reference protein is a process enzyme.

Claim 94 (Previously added). The method of claim 93, wherein the process enzyme is an amylase, cellulase, lipase, or lyase.

Claim 95 (Previously added). The method of claim 87, wherein the reference protein is a medicinal protein.

Claim 96 (Previously added). The method of claim 95, wherein the medicinal protein is a hormone or medicinal enzyme.